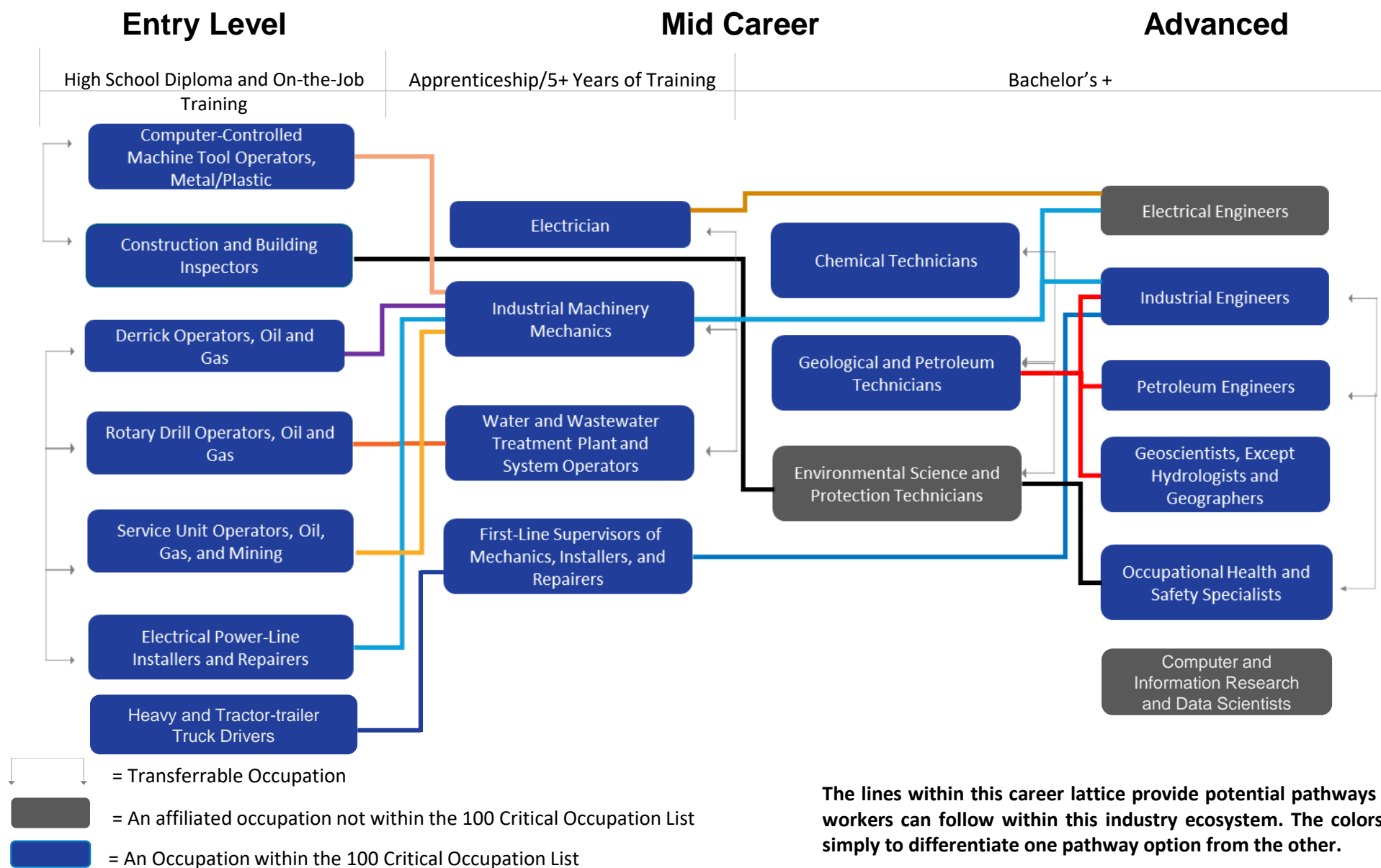


Energy Ecosystem Career Lattice

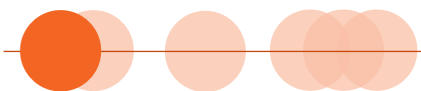


The lines within this career lattice provide potential pathways that workers can follow within this industry ecosystem. The colors are simply to differentiate one pathway option from the other.

Computer-Controlled Machine Tool Operators, Metal and Plastic Occupational Profile

MEDIAN SALARY & WAGES

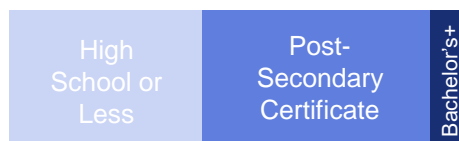
\$17.69/hour



COMMON JOB TITLES

CNC Operator
Machine Operator (Production)
CNC Machinist
Laser Operator

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Operation Monitoring
Monitoring
Quality Control Analysis
Critical Thinking
Operation and Control
Reading Comprehension
Complex Problem Solving
Active Listening
Troubleshooting
Judgment and Decision Making

TOTAL JOBS FOR 2028

3,083



COMMON KNOWLEDGE COMPETENCIES

Production and Processing
Mechanical
Mathematics
Design

TOP CERTIFICATIONS REQUESTED

Certified Purchasing Professional

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education

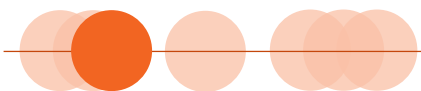


Creative
Industries

Construction and Building Inspectors Occupational Profile

MEDIAN SALARY & WAGES

\$21.81/hour



COMMON JOB TITLES

Construction Inspector

Property Adjuster

Building Inspector

Property Underwriter

REQUESTED EDUCATION

High
School
or Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Reading Comprehension

Critical Thinking

Active Listening

Speaking

Complex Problem Solving

Writing

Quality Control Analysis

Judgment and Decision Making

Active Learning

Monitoring

TOTAL JOBS FOR 2028

1,904



COMMON KNOWLEDGE COMPETENCIES

Building and Construction

English Language

Customer and Personal Service

Engineering and Technology

TOP CERTIFICATIONS REQUESTED

Certified Welding Inspector

Commercial Driver's License (CDL)

Construction Documents Technologist

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



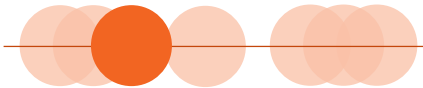
**OKLAHOMA
WORKS**

 Indicates an especially close similarity

Derrick Operators, Oil and Gas Occupational Profile

MEDIAN SALARY & WAGES

\$23.17/hour



COMMON JOB TITLES

Derrickman

Lease Operator

Pumper

Roughneck

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Operation Monitoring

Operation and Control

Critical Thinking

Effective Communication

Monitoring

Repairing

Active Listening

Coordination

Troubleshooting

TOTAL JOBS FOR 2028

1,254



COMMON KNOWLEDGE COMPETENCIES

Mechanical

Mathematics (Basic)

English Language

Education and Training

TOP CERTIFICATIONS REQUESTED

First Aid / CPR Certification

Hydrogen Sulfide (H2S) Safety Training

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries

Rotary Drill Operators, Oil and Gas Occupational Profile

MEDIAN SALARY & WAGES

\$25.29/hour



COMMON JOB TITLES

Driller

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Critical Thinking

Operation Monitoring

Operation and Control

Active Listening

Monitoring

Instructing

Effective Communication

Coordination

Reading Comprehension

Complex Problem Solving

TOTAL JOBS FOR 2028

2,114



COMMON KNOWLEDGE COMPETENCIES

Mechanical

Mathematics (Basic)

Administration and Management

Education and Training

English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

Operator Certification

Level 3 Well Control Certification

Hydrogen Sulfide (H2S) Safety Training

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



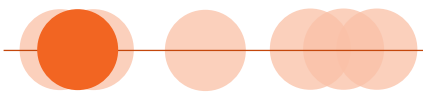
OKLAHOMA
WORKS

Indicates an especially close similarity

Service Unit Operators, Oil, Gas, and Mining Occupational Profile

MEDIAN SALARY & WAGES

\$20.54/hour



COMMON JOB TITLES

Equipment Operator
Wireline Operator
Field or Lease Operator
Pumper
Slickline or Snubbing Operator

REQUESTED EDUCATION

High School or Less

Post-Secondary Certificate

TOP SKILLS REQUESTED

Critical Thinking
Operation Monitoring
Operation and Control
Active Listening
Monitoring
Troubleshooting
Judgment and Decision Making
Complex Problem Solving
Equipment Maintenance
Reading Comprehension
Effective Communication

TOTAL JOBS FOR 2028

3,432



COMMON KNOWLEDGE COMPETENCIES

Mechanical
Mathematics
Customer and Personal Service
Engineering and Technology

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
First Aid / CPR Certification
Hydrogen Sulfide (H2S) Safety Training
Transportation Worker Identification Credential (TWIC)

SIMILAR INDUSTRIES



Aerospace & Defense



Agriculture & Biosciences



Energy



Information & Financial Systems



Transportation & Distribution



Construction



Health Care



Education



Creative Industries



OKLAHOMA
WORKS

Indicates an especially close similarity

Electrical Power-Line Installers and Repairers Occupational Profile

MEDIAN SALARY & WAGES

\$24.81/hour



COMMON JOB TITLES

Journeyman Lineman

Lineman

Transmission Technician

Maintenance Manager

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Active Listening

Monitoring

Critical Thinking

Operation Monitoring

Troubleshooting

Effective Communication

Coordination

Complex Problem Solving

Operation and Control

Repairing

TOTAL JOBS FOR 2028

2,498



COMMON KNOWLEDGE COMPETENCIES

Mechanical

Customer and Personal Service

Physics

English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

First Aid / CPR Certification

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



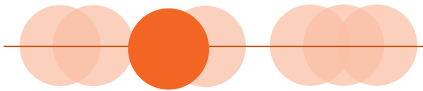
OKLAHOMA
WORKS

 Indicates an especially close similarity

Heavy and Tractor-Trailer Truck Drivers Occupational Profile

MEDIAN SALARY & WAGES

\$19.28



COMMON JOB TITLES

Truck Driver

Flatbed Driver

Owner Operator

CDL Driver

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Operation and Control

Operation Monitoring

Time Management

Reading Comprehension

Speaking

Critical Thinking

Monitoring

Troubleshooting

Coordination

Purchasing

TOTAL JOBS FOR 2028

26,425



COMMON KNOWLEDGE COMPETENCIES

Transportation

Public Safety and Security

Customer and Personal Service

English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

Transportation Worker Identification
Credential (TWIC) Card

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education

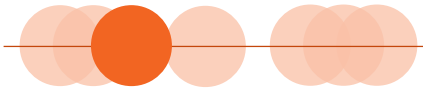


Creative
Industries

Electricians Occupational Profile

MEDIAN SALARY & WAGES

\$23.47/hour



COMMON JOB TITLES

Journeyman Electrician
Electrician
Electrician Apprentice
Maintenance Electrician

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

TOP SKILLS REQUESTED

Troubleshooting
Repairing
Active Listening
Critical Thinking
Judgment and Decision Making
Installation
Effective Communication
Active Learning
Monitoring
Instructing

TOTAL JOBS FOR 2028

7,631



COMMON KNOWLEDGE COMPETENCIES

Building and Construction
Mechanical
Mathematics
English Language

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
First Aid / CPR Certification
Certified Broadcast Radio Engineer

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education

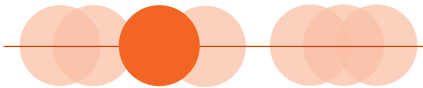


Creative
Industries

Industrial Machinery Mechanics Occupational Profile

MEDIAN SALARY & WAGES

\$23.66/hour



COMMON JOB TITLES

Maintenance Mechanic
Food Service Worker
Maintenance Machinist
Maintenance Technician

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Operation Monitoring
Repairing
Equipment Maintenance
Troubleshooting
Monitoring
Operation and Control
Quality Control Analysis
Critical Thinking
Equipment Selection
Active Listening

TOTAL JOBS FOR 2028

5,528



COMMON KNOWLEDGE COMPETENCIES

Mechanical
Engineering and Technology
Production and Processing
Mathematics

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
ASNT Non-Destructive Tester
Transportation Worker Identification
Credential (TWIC) Card

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



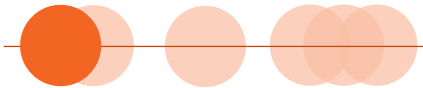
OKLAHOMA
WORKS

 Indicates an especially close similarity

Water and Wastewater Treatment Plant and System Operators Occupational Profile

MEDIAN SALARY & WAGES

\$15.38/hour



COMMON JOB TITLES

Water Treatment Operator

Plant Operator

Wastewater Operator

Water Technician

REQUESTED EDUCATION

High
School or
Less

Post-
Secondary
Certificate

Bachelor's+

TOP SKILLS REQUESTED

Effective Communication

Operation Monitoring

Operation and Control

Quality Control Analysis

Monitoring

Reading Comprehension

Active Listening

Equipment Maintenance

Troubleshooting

Critical Thinking

Repairing

TOTAL JOBS FOR 2028

2,372



COMMON KNOWLEDGE COMPETENCIES

Mathematics

Mechanical

Public Safety and Security

Chemistry

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



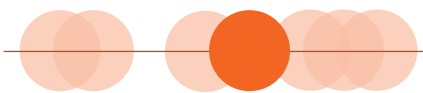
OKLAHOMA
WORKS

 Indicates an especially close similarity

First-Line Supervisors of Mechanics, Installers, and Repairers Occupational Profile

MEDIAN SALARY & WAGES

\$29.91/hour



COMMON JOB TITLES

Maintenance Manager
Maintenance Supervisor
Maintenance Mechanic
HVAC Refrigeration Technician

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Effective Communication
Monitoring
Management of Personnel Resources
Critical Thinking
Coordination
Time Management
Reading Comprehension
Active Listening
Quality Control Analysis
Judgment and Decision Making

TOTAL JOBS FOR 2028

6,936



COMMON KNOWLEDGE COMPETENCIES

Mechanical
Customer and Personal Service
Administration and Management
Public Safety and Security

TOP CERTIFICATIONS REQUESTED

Commercial Driver's License (CDL)
Certified Apartment Service Technician
Certified First Responder

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



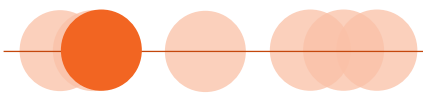
OKLAHOMA
WORKS

Indicates an especially close similarity

Chemical Technicians Occupational Profile

MEDIAN SALARY & WAGES

\$22.07/hour



COMMON JOB TITLES

Laboratory Technician

Mud Engineer

Chemical Technician

Laboratory Assistant

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Effective Communication

Reading Comprehension

Science

Monitoring

Critical Thinking

Active Listening

Writing

Quality Control Analysis

Mathematics

Judgment and Decision Making

TOTAL JOBS FOR 2028

590



COMMON KNOWLEDGE COMPETENCIES

Chemistry

English Language

Mathematics

Computers and Electronics

TOP CERTIFICATIONS REQUESTED

Medical Technologist

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



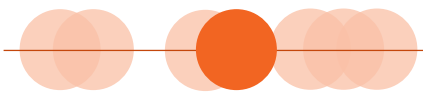
OKLAHOMA
WORKS

 Indicates an especially close similarity

Geological and Petroleum Technicians Occupational Profile

MEDIAN SALARY & WAGES

\$25.92/hour



COMMON JOB TITLES

Geological or Engineering Technician
Field Service Technician
Field Specialist
Data Center Technician
Mud Logger

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Reading Comprehension
Critical Thinking
Active Listening
Effective Communication
Judgment and Decision Making
Writing
Science
Time Management
Operation Monitoring
Complex Problem Solving

TOTAL JOBS FOR 2028

1,406



COMMON KNOWLEDGE COMPETENCIES

Engineering and Technology
Chemistry
Mathematics
Computers and Electronics

TOP CERTIFICATIONS REQUESTED

Petra Training
PHDWIN Certification
ARIES Certification
ArcGIS Certification

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



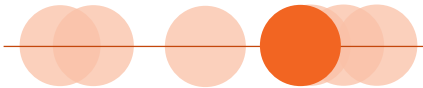
OKLAHOMA
WORKS

 Indicates an especially close similarity

Industrial Engineers Occupational Profile

MEDIAN SALARY & WAGES

\$38.60/hour



COMMON JOB TITLES

Process Engineer
Quality Assurance Engineer
Quality Engineer
Manufacturing Engineer
Production Engineer

REQUESTED EDUCATION

Bachelor's+

TOP SKILLS REQUESTED

Reading Comprehension
Active Listening
Writing
Critical Thinking
Complex Problem Solving
Effective Communication
Monitoring
Judgment and Decision Making
Mathematics
Active Learning

TOTAL JOBS FOR 2028

1,901



COMMON KNOWLEDGE COMPETENCIES

Engineering and Technology
Production and Processing
Mathematics
Mechanical

TOP CERTIFICATIONS REQUESTED

American Society For Quality Certified
Certified Quality Engineer
Professional Engineer
Certified Welding Inspector

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



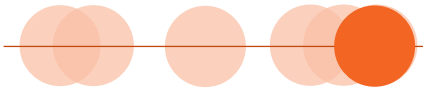
OKLAHOMA
WORKS

 Indicates an especially close similarity

Petroleum Engineers Occupational Profile

MEDIAN SALARY & WAGES

\$55.32/hour



COMMON JOB TITLES

Field or Operation Engineer
Reservoir Engineer
Oil and Gas or Production Engineer
Drilling Engineer
Completions Engineer

REQUESTED EDUCATION

Bachelor's+

TOP SKILLS REQUESTED

Reading Comprehension
Active Listening
Writing
Critical Thinking
Effective Communication
Complex Problem Solving
Monitoring
Collaboration
Judgment and Decision Making
Systems Analysis

TOTAL JOBS FOR 2028

2,860



COMMON KNOWLEDGE COMPETENCIES

Engineering and Technology
Physics
Mathematics
Computers and Electronics

TOP CERTIFICATIONS REQUESTED

Professional Engineer
Licensed Professional Engineer

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education

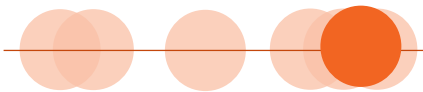


Creative
Industries

Geoscientists, Except Hydrologists and Geographers Occupational Profile

MEDIAN SALARY & WAGES

\$54.73/hour



COMMON JOB TITLES

Geologist
Geoscientist
Petrophysicist
Geophysicist

REQUESTED EDUCATION

Bachelor's+

TOP SKILLS REQUESTED

Reading Comprehension
Science
Effective Communication
Critical Thinking
Active Listening
Complex Problem Solving
Writing
Judgment and Decision Making
Mathematics
Active Learning
Coordination

TOTAL JOBS FOR 2028

1,180



COMMON KNOWLEDGE COMPETENCIES

English Language
Physics
Mathematics
Geology
Computers and Technology

TOP CERTIFICATIONS REQUESTED

Bachelor of Science or Arts in Geology
ArcGIS Certification

SIMILAR INDUSTRIES



Aerospace
& Defense



Agriculture &
Biosciences



Energy



Information &
Financial
Systems



Transportation
& Distribution



Construction



Health Care



Education



Creative
Industries



OKLAHOMA
WORKS

 Indicates an especially close similarity

Occupational Health and Safety Specialists Occupational Profile

MEDIAN SALARY & WAGES

\$31.41/hour



COMMON JOB TITLES

Health and Safety Officer

Safety Specialist

Safety Manager

Health Information Specialist

REQUESTED EDUCATION



TOP SKILLS REQUESTED

Active Listening

Effective Communication

Critical Thinking

Complex Problem Solving

Reading Comprehension

Judgment and Decision Making

Writing

Social Perceptiveness

Systems Evaluation

Monitoring

TOTAL JOBS FOR 2028

1,502



COMMON KNOWLEDGE COMPETENCIES

English Language

Law and Government

Education and Training

Public Safety and Security

TOP CERTIFICATIONS REQUESTED

Certified Safety Professional

Certified Hazardous Materials Manager

Construction Health And Safety Technician

SIMILAR INDUSTRIES



Aerospace & Defense



Agriculture & Biosciences



Energy



Information & Financial Systems



Transportation & Distribution



Construction



Health Care



Education



Creative Industries

Oklahoma's Ecosystems

WHAT IS AN ECONOMIC ECOSYSTEM?

Oklahoma has identified nine driver and complementary economic systems representing the most prominent industries in terms of wealth generation and growth potential. Driver ecosystems drive wealth generation in Oklahoma, while the complementary ecosystems help to expand wealth in the economy and provide the infrastructure and services to support the driver systems in the state.

- Driver ecosystems: Aerospace and Defense, Agriculture and Biosciences, Energy, Information and Financial Systems, and Transportation and Distribution.
- Complementary Ecosystems: Construction, Health care, Education, and Creative industries.

WHAT ARE THE 100 CRITICAL OCCUPATIONS?

These occupations represent the most pressing needs in each of Oklahoma's Driver and Complementary Economic Systems necessary for the state's continued growth and economic prosperity. A workforce pipeline for each of the top 100 critical occupations is required for Oklahoma's businesses to grow and for Oklahoma citizens to earn a prosperous living. Factors included in the selection process demonstrate the values of job growth, wealth generation, and education, as outlined below:

- Job growth: all occupations have positive forecasted employment growth over the next ten years
- Wealth Generation: all occupations offer median wages greater than or equal to \$12.00 per hour
- Education: occupations requiring "no formal education" are eliminated, except those that offer greater than or equal to \$20.00 per hour.

WHAT ARE TRANSFERABLE OCCUPATIONS?

There are occupations that can provide valuable on-the-job training for individuals interested in the 100 Critical Occupations. These are generally entry-level or mid-career level occupations that can help individuals develop the knowledge, skills, and abilities needed to move forward on their career paths.

WHAT ARE CAREER PATHWAYS?

Career pathways are designed to help people who are looking to make the next step in their careers both envision and plan for their long-term employment goals. The recommended pathways in this report are based on forecasted employment prospects as well as knowledge, skills and ability profile data by specific occupation. These data were gathered from numerous employer-demand driven data sources. Based on these data, Oklahoma Works determined similarities and difference between each occupation's required skill sets and developed possible career pathways options.



OKLAHOMA
WORKS

Glossary

ABILITIES – the proficiency, skills, or talent within a particular area.

CAREER PATHWAY – a career pathway means a combination of relevant, rigorous and high-quality education, training, and supportive services that aligns both vertically and horizontally across Secondary Education, Adult Basic Education, Workforce Training and Development, Career and Technical Education, and Postsecondary Education systems, pathways, and programs.

CERTIFICATION – third party accrediting or authorizing agency or person who assess, verifies, and provides an official documentation that attests a level of achievement.

COMPETENCIES – an individual’s ability to do a job properly through a set of behaviors.

INDUSTRY-ALIGNED CREDENTIAL – credentials whose standards are aligned to industry-recognized standards.

INDUSTRY-ENDORSED CREDENTIAL – credentials whose standards are aligned to and endorsed by industry.

INDUSTRY-RECOGNIZED CREDENTIAL – an industry-recognized credential is one that either is developed and offered by, or endorsed by a nationally-recognized industry association or organization representing a sizeable portion of the industry sector, or a credential that is sought or accepted by companies within the industry sector for purposes of hiring or recruitment which may include credentials from vendors of certain products.¹

KNOWLEDGE – the skills and information acquired through education or experience.

MEDIAN HOURLY EARNINGS – hourly earnings for the occupation reported at the 50th percentile.

REQUESTED EDUCATION – the highest level of education for workers within the given occupational category. Please note these are not the level of education of new incoming workers but of workers currently employed within these positions.

SKILLS – the ability or expertise to do something well.

TOTAL JOBS – estimated number of jobs in the given year, taken as average over a period of 12-months. This value includes both full- and part-time jobs.



**OKLAHOMA
WORKS**

¹ For this analysis, TPMA utilized certifications data from a third-party data aggregator, Economic Modeling Specialists, Inc., which daily accesses over 300 million unique job postings records. Though these certifications have not been vetted by Oklahoma Works, they are observed as commonly requested by industry employers.